

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, Claims 1-20, 43 and 44 in the reply filed on 4/21/2011 is acknowledged.
2. Claims 21-42 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/21/2011.

### ***Information Disclosure Statement***

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 4 recites the limitation "said wing extensions" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

7. The following is a quotation of the fourth paragraph of 35 U.S.C. 112:

A claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

8. Claim 16 is rejected under 35 U.S.C. 112, fourth paragraph, as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3, 5, 9, 12, 18, 42 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,246,143 to Cherfane.

Cherfane shows a hand held dispenser (Fig. 3), comprising a handle (28), a dispense material manifold (12) supported by the handle, and a dispense material mixing module (18) supported at a forward dispensing end of the manifold. The mixing module having a dispense material passageway (164) that opens out to a dispenser

outlet (166). The dispenser includes a driver (20) supported by the handle, a reciprocating member (184) in driving communication with the driver and positioned for reciprocation in the mixing module, a first and second valve assembly (78, two assemblies) and a first and second valve housing (16) receiving the first and second valve assembly with the first and second valve housings extending rearwardly off of a first and second side of a main body portion of the manifold such that the first and second valve housings are rearward of a rearward end of the mixing module (Fig. 3), a first and second dispense material hose fitting (76) in dispense material communication with the first and second valve housings.

Regarding claims 2 and 3, Cherfane shows that each of the first and second valve housings has a forward end that lies rearward of a rearward end of said mixing module (Fig. 3) and the manifold main body portion includes a pair of manifold wing extensions (116, 118) positioned to opposite sides of the mixing module and each having a dispense material feed passageway section (120, 122) feeding to the mixing module, and each wing extension being connected, at an upstream end of the wing extensions with respect to dispense material flow, with a respective one of the first and second valve housings (at 58, 60).

Regarding claim 5, Cherfane shows that the main body portion includes a forward, central mixing module reception recess section (formed by 52) and wherein the wing extensions have inwardly sloping interior walls that partially define the mixing module reception recess section (Fig. 3).

Regarding claim 9, Cherfane shows that the first and second valve assemblies include valve shut off handles (78) that are hand operable by an operator free of tools.

Regarding claim 12, Cherfane shows that the reciprocating member is a valve rod (184) that reciprocates in the mixing module and the dispense material includes a first and a second type of foam precursor chemical (Col. 1, ll. 16-27) with the first type supplied via a first hose connected to the first fitting and the second type supplied via a second hose connected to the second fitting and the first and second types being mixed within the mixing module upon retraction of the valve rod and just before exiting the dispenser outlet (Col. 20, ll. 15-21).

Regarding claim 18, Cherfane shows that each chemical flow passageway has a main passageway section that extends along a common axis of elongation from a hose fitting inlet point to a point representing a divergence off into a chemical passageway section providing a direct feed to the mixing module which common axis is essentially parallel with an axis of elongation of said reciprocating member (see Fig. 3).

Regarding claims 43 and 44, Cherfane discloses assembling and using the foam dispenser as discussed above.

### ***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1, 2, 6-10, 13, 14, 19, 20, 43 and 44 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,215,226 to Bertram et al. (Bertram) in view of U.S. Patent No. 5,529,245 to Brown.

Bertram shows a hand held dispenser (Fig. 1), comprising a handle (Fig. 1), a dispense material manifold (10) supported by the handle having a trigger in an hollow upper region (Fig. 1), and a dispense material mixing module (21) supported at a forward dispensing end of the manifold. The mixing module has a dispense material passageway (within 21) that opens out to a dispenser outlet (end of 21). The dispenser includes a driver (13) supported by the handle, a reciprocating member (35) in driving communication with the driver and positioned for reciprocation in the mixing module, a first and second valve assembly (16, 17) and a first and second valve housing (20) receiving the first and second valve assembly, and a first and second dispense material hose fitting (25) in dispense material communication with the first and second valve housings.

Bertram fails to disclose that the first and second valve housings extend rearwardly off of a first and second side of a main body portion of the manifold such that the first and second valve housings are rearward of a rearward end of the mixing module.

Brown shows a hand held dispenser (Fig. 1) with a handle (14), a dispense manifold (12), a mixing module (21) and first and second valve assemblies (86, 88) with housings (90, 92) that extend rearwardly off of a first and second side of a main body portion of the manifold such that the first and second valve housings are rearward of a rearward end of the mixing module (Fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the valve housing of Bertram to extend rearwardly off the main body behind the mixing module as taught by Brown as an obvious design choice to achieve the desired appearance, weight distribution and shape of the dispenser, especially since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claim 2, Bertram as modified by Brown results in each of the first and second valve housings having a forward end that lies rearward of a rearward end of said mixing module (Fig. 1 of Brown).

Regarding claims 6-8, Bertram shows a mixing module fastening means (22) that pushes down the mixing module into a reception recess section in fastening the mixing module to the manifold, includes one or more screw fasteners (33) that extend through the manifold and into threaded engagement with a threaded screw reception portion

(32) of the manifold and a combination male projection portion (42) and female side wall configuration (43) conforming to said male projection portion in a contact region between said mixing module and manifold. Bertram fails to specifically disclose that the fastening means is positioned on an underside of the mixing module or that the screw fasteners screw into the bottom of the mixing module, however, it would have been an obvious design choice to one having ordinary skill in the art at the time the invention was made to have rearranged the fastening means of Bertram and replaced the claim structure with a direct attachment to reduce parts and achieve the desired appearance.

Regarding claims 9 and 10, Bertram shows that the first and second valve assemblies include valve shut off handles (24) that are hand operable by an operator free of tools and include a rotating head with rotation limiting means (22) and an elongated handle which extends in a common direction of elongation as that of an adjacent combination of valve housing and hose fitting (Fig. 6).

Regarding claims 12 and 13, Bertram shows that the reciprocating member is a valve rod that reciprocates in the mixing module and the dispense material includes a first and a second type of foam precursor chemical (Col. 6, ll. 10-12) with the first and second types being mixed within the mixing module upon retraction of the valve rod and just before exiting the dispenser outlet (Col. 6, ll. 10-12). The device includes a drive train system which is positioned so as to convey drive from the driver to the reciprocating member (col. 6, ll. 8-10) and which includes a transmission housing (11). Bertram fails to disclose that the housing is received within a common central, axially

elongated recessed section in the manifold which also receives the mixing module, and wherein the transmission housing has a common exterior configuration as that of a housing of the mixing module and is in contact with a rear end of the mixing module as to provide an essentially non-stepped interface which helps avoid contaminate build up. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the device of Bertram in the specified configuration as an obvious design choice to achieve the desired appearance, weight distribution and shape of the dispenser.

Regarding claim 15, Bertram discloses that the drive train is a ball screw transmission and a gear train (Col. 6, ll. 8-10) but is silent with respect to the length of the central axis of the drive shaft. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the ball screw of Bertram as modified by Brown with a length less than 1.5 inches to achieve the desired stroke length, especially since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 204 USPQ 215 (CCPA 1980).

Regarding claim 20, Bertram discloses that the reciprocating member is a mixing module valving rod, the driver is an electric motor, and the dispenser further comprises a drive transmission assembly transmitting drive from said driver to said rod which transmission assembly includes a gear train set (Col. 6, ll. 8-12). Bertram is silent with respect to the gear train set consisting of only a first and second gear in meshing contact and with said first gear being in direct engagement with a drive shaft of the



motor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have designed the gear train set of Bertram with two gears to achieve the desired gear ratio and to minimize weight and number of parts.

Regarding claims 43 and 44, Bertram discloses assembling and using the foam dispenser as discussed above.

14. Claims 4, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherfane.

Cherfane shows all aspects of the applicant's invention as set forth in claims 1 and 3, but fails disclose that the wing extensions have forwardly converging side edges and downwardly sloped upper surfaces. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the wing extensions of Bertram with forwardly converging side edges and downwardly sloped upper surfaces as an obvious design choice to achieve the desired appearance, weight distribution and shape of the dispenser.

Regarding claim 10, Cherfane shows that the shut off valves include a rotating head (78) with rotation limiting means (top of 78 is bent over to limit rotation) and an elongated handle but fails to show that the handle extends in a common direction of elongation as that of an adjacent combination of valve housing and hose fitting. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the handle of Cherfane in the same direction as the valve

housing and hose fitting as an obvious design choice to achieve the desired appearance, weight distribution and shape of the dispenser.

15. Claims 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertram in view of Brown as applied to claim 13 above, and further in view of U.S. Patent No. 3,389,727 to Feldpausch.

Bertram as modified by Brown shows all aspects of the applicant's invention as set forth in claim 13 and further discloses that drive train includes a ball screw transmission (Bertram, Col. 6, ll. 8-10) but fails to disclose the pitch angle of the ball screw. Feldpausch discloses that the pitch angle of the ball screw can determine the magnitude of axial thrust (Col. 3, ll. 39-42). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have manufactured the ball screw of Bertram as modified by Brown with a pitch angle of less than 9 degrees to achieve a desired amount of axial thrust as taught by Feldpausch, especially since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 204 USPQ 215 (CCPA 1980).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL R. SHEARER whose telephone number is (571)270-7416. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571)272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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